

|   | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|---|------|------|---|--|---------------------|----------|
| 1 | BRS  | 5    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3) with troubleshoot\$3 and micro-fabrication  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:35 |          |
| 2 | BRS  | 1296 | 700/121.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>07:54 |          |
| 3 | BRS  | 440  | 714/46.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>07:54 |          |
| 4 | BRS  | 82   | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3) with troubleshoot\$3 and (micro-fabrication or fabrication) with (semiconductor\$1 or wafer\$1 or IC\$1 or integrated adj circuit\$1) or chip\$1 or die\$1) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:34 |          |

|   | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|---|------|------|---|--|---------------------|----------|
| 5 | BRS  | 8391 | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1)   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>07:54 |          |
| 6 | BRS  | 60   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charged with beam\$1 and<br>software | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:36 |          |

|   | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|---|------|------|---|--|---------------------|----------|
| 7 | BRS  | 5    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charged with beam\$1 and<br>software with execut\$3  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:49 |          |
| 8 | BRS  | 7    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with beam\$1 and<br>software with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:16 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 9  | BRS  | 21   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with beam\$1 and<br>(program\$4 or software\$1)<br>with execut\$3                     | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:49 |          |
| 10 | BRS  | 15   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (program\$4<br>or software\$1) with<br>execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:10 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 11 | BRS  | 5    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 and user\$1<br>with interface | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:12 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 12 | BRS  | 1    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(tow or dual) with charg\$3<br>with beam\$1 and (program\$4<br>or software\$1) with<br>execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:12 |          |
| 13 | BRS  | 3    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(tow or dual) with charg\$3<br>with beam\$1  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:13 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 14 | BRS  | 0    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with troubleshoot\$3 and (micro-fabrication or fabrication) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and high with resolution with image\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:13 |          |
| 15 | BRS  | 2    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with troubleshoot\$3 and (micro-fabrication or fabrication) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and high with resolution with imag\$3  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:13 |          |

| Type | Hits     | Search Text  | DBs  | Time Stamp          | Comments |
|------|----------|--|--|---------------------|----------|
| 16   | BRS 1173 | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (micro-fabrication or fabrication) and high with resolution with imag\$3                                      | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:17 |          |
| 17   | BRS 184  | (troubleshoot\$3 or inspect\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (micro-fabrication or fabrication) and high with resolution with imag\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:17 |          |



|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 18 | BRS  | 70   | (troubleshoot\$3 or inspect\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomaly\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (micro-fabrication or fabrication) and high with resolution with imag\$3 and defect\$1 with (file\$1 dor database) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:17 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 19 | BRS  | 1    | (troubleshoot\$3 or inspect\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (micro-fabrication or fabrication) and high with resolution with imag\$3 and initial\$2 with defect\$1 with (file\$1 dor database) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:18 |          |
| 20 | BRS  | 107  | (analy\$4 or diagnos\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and chemical\$2 with analy\$4 with surface\$1   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:18 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 21 | BRS  | 4    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>chemical\$2 with analy\$4<br>with exposed with<br>surface\$1  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:20 |          |
| 22 | BRS  | 11   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>chemical\$2 with analy\$4<br>with expos\$3 with<br>surface\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:20 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 23 | BRS  | 7    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>EDS with tool\$1                                    | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:21 |          |
| 24 | BRS  | 142  | (defect\$1 or error\$1 or<br>malfunction\$2 or problem\$1<br>or fault\$1 or fail\$3 or<br>anomal\$3 or trouble\$1)<br>with (semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(cross-section\$2 or (cross<br>with section\$2)) with (3-d<br>mor dimension\$1) and EDS | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:25 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 25 | BRS  | 1    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (cross-section\$2 or (cross with section\$2)) with (3-d mor dimension\$1) with EDS | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:25 |          |
| 26 | BRS  | 3    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (cross-section\$2 or (cross with section\$2)) with (3-d mor dimension\$1) same EDS | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:26 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 27 | BRS  | 307  | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and chemical\$2 with analy\$4 with surface\$1  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:26 |          |
| 28 | BRS  | 46   | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) with chemical\$2 with analy\$4 with surface\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:26 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 29 | BRS  | 4    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) with chemical\$2 with analy\$4 with expos\$3 with surface\$1   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:27 |          |
| 30 | BRS  | 3    | (analy\$4 or diagnos\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and two with charg\$3 with particle\$1 with beam\$1 and (program\$4 or software\$1 or cod\$3) with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:27 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 31 | BRS  | 5    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:28 |          |



|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 32 | BRS  | 2    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) same<br>charg\$3 with particle\$1<br>with beams and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:31 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 33 | BRS  | 711  | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>devices with beams and<br>(program\$4 or software\$1<br>or cod\$3) with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:31 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 34 | BRS  | 2    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(dual or two) with charg\$3<br>with particle\$1 with beams<br>and (program\$4 or<br>software\$1 or cod\$3) with<br>execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:28 |          |
| 35 | BRS  | 2    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(dual or two) with charg\$3<br>with particle\$1 with beams   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:28 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 36 | BRS  | 12   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(dual or two) with charg\$3<br>with particle\$1 with beams | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:29 |          |
| 37 | BRS  | 0    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>dual with charg\$3 with<br>particle\$1 with beams          | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:32 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 38 | BRS  | 5    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>dual with charg\$3 with<br>particle\$1 with beam\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:32 |          |
| 39 | BRS  | 6    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>dual same charg\$3 with<br>particle\$1 with beam\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:32 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 40 | BRS  | 45   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(two or dual) with charg\$3<br>with particle\$1             | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:32 |          |
| 41 | BRS  | 12   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(two or dual) adj beams<br>and charg\$3 with<br>particle\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:33 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 42 | BRS  | 5    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:33 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 43 | BRS  | 1    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 and user\$1<br>with (interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:35 |          |



|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 44 | BRS  | 5    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$ and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 and user\$1<br>with (interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:36 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 45 | BRS  | 58   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:37 |          |
| 46 | BRS  | 16   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams and user\$1 with<br>(interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:37 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 47 | BRS  | 18   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (two or<br>dual) with beam\$1 and<br>user\$1 with (interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:37 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 48 | BRS  | 16   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (two or<br>dual) adj beam\$1 and<br>user\$1 with (interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:38 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 49 | BRS  | 0    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (two or<br>dual) adj beam\$1 and<br>user\$1 with (interface or<br>communicat\$3) and computer<br>with job\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:38 |          |
| 50 | BRS  | 773  | (defect\$1 or error\$1 or<br>malfunction\$2 or problem\$1<br>or fault\$1 or fail\$3 or<br>anomal\$3 or trouble\$1)<br>with (semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(calibrat\$3 or compensat\$3<br>or adjust\$3) with imag\$3<br>with value\$1  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:38 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 51 | BRS  | 53   | analy\$4 with (defect\$1 or<br>error\$1 or malfunction\$2<br>or problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(calibrat\$3 or compensat\$3<br>or adjust\$3) with imag\$3<br>with value\$1                                | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:39 |          |
| 52 | BRS  | 1    | analy\$4 with (defect\$1 or<br>error\$1 or malfunction\$2<br>or problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(calibrat\$3 or compensat\$3<br>or adjust\$3) with charged<br>with particle with beam<br>with parameter\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:39 |          |

|    | Type | Hits | Search Text               | DBs  | Time Stamp          | Comments |
|----|------|------|---------------------------|--|---------------------|----------|
| 53 | BRS  | 807  | 702/183.ccls.             | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM TDB | 2005/11/28<br>07:53 |          |
| 54 | BRS  | 2102 | 702/117,118,183,185.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM TDB | 2005/11/28<br>07:53 |          |
| 55 | BRS  | 873  | 702/183.ccls.             | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM TDB | 2005/11/28<br>07:53 |          |
| 56 | BRS  | 2251 | 702/117,118,183,185.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM TDB | 2005/11/28<br>07:54 |          |
| 57 | BRS  | 1388 | 700/121.ccls.             | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM TDB | 2005/11/28<br>07:54 |          |
| 58 | BRS  | 454  | 714/46.ccls.              | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM TDB | 2005/11/28<br>07:54 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 59 | BRS  | 4041 | 702/117,118,183,185.ccls.<br>or 700/121.ccls. or<br>714/46.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM TDB | 2005/11/28<br>07:54 |          |
| 60 | BRS  | 340  | (702/117,118,183,185.ccls.<br>or 700/121.ccls. or<br>714/46.ccls.) and (analy\$4<br>or diagnos\$3) with<br>(defect\$1 or error\$1 or<br>malfunction\$2 or problem\$1<br>or fault\$1 or fail\$3 or<br>anomal\$3 or trouble\$1)<br>with (semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM TDB | 2005/11/28<br>09:05 |          |



|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 61 | BRS  | 2    | (702/117,118,183,185.ccls.<br>or 700/121.ccls. or<br>714/46.ccls.) and (analy\$4<br>or diagnos\$3) with<br>(defect\$1 or error\$1 or<br>malfunction\$2 or problem\$1<br>or fault\$1 or fail\$3 or<br>anomal\$3 or trouble\$1)<br>with (semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charged with beam\$1 and<br>software | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:19 |          |
| 62 | BRS  | 4    | (702/117,118,183,185.ccls.<br>or 700/121.ccls. or<br>714/46.ccls.) and (analy\$4<br>or diagnos\$3) with<br>(defect\$1 or error\$1 or<br>malfunction\$2 or problem\$1<br>or fault\$1 or fail\$3 or<br>anomal\$3 or trouble\$1)<br>with (semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charged with beam\$1                 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:20 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 63 | BRS  | 1    | (702/117,118,183,185.ccls.<br>or 700/121.ccls. or<br>714/46.ccls.) and (analy\$4<br>or diagnos\$3) with<br>(defect\$1 or error\$1 or<br>malfunction\$2 or problem\$1<br>or fault\$1 or fail\$3 or<br>anomal\$3 or trouble\$1)<br>with (semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with beam\$1 and<br>software with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:17 |          |
| 64 | BRS  | 8867 | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1)  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:19 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 65 | BRS  | 74   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charged with beam\$1 and<br>software | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:19 |          |
| 66 | BRS  | 275  | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charged with beam\$1                 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:20 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 67 | BRS  | 84   | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3) with troubleshoot\$3 and (micro-fabrication or fabrication) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:34 |          |
| 68 | BRS  | 5    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3) with troubleshoot\$3 and micro-fabrication   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:35 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 69 | BRS  | 74   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charged with beam\$1 and<br>software                | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:44 |          |
| 70 | BRS  | 10   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charged with beam\$1 and<br>software with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:49 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 71 | BRS  | 27   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with beam\$1 and<br>(program\$4 or software\$1)<br>with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>08:49 |          |
| 72 | BRS  | 89   | (702/117,118,183,185.ccls.<br>or 700/121.ccls. or<br>714/46.ccls.) and (analy\$4<br>or diagnos\$3) with<br>(defect\$1 or error\$1 or<br>malfunction\$2 or problem\$1<br>or fault\$1 or fail\$3 or<br>anomal\$3 or trouble\$1)<br>with (semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1)            | US-PGPUB   | 2005/11/28<br>09:06 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 73 | BRS  | 18   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (program\$4<br>or software\$1) with<br>execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:10 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 74 | BRS  | 6    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 and user\$1<br>with interface | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:12 |          |



|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 75 | BRS  | 1    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(tow or dual) with charg\$3<br>with beam\$1 and (program\$4<br>or software\$1) with<br>execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:12 |          |
| 76 | BRS  | 3    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(tow or dual) with charg\$3<br>with beam\$1  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:13 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 77 | BRS  | 0    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with troubleshoot\$3 and (micro-fabrication or fabrication) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and high with resolution with image\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:13 |          |
| 78 | BRS  | 1324 | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (micro-fabrication or fabrication) and high with resolution with imag\$3                       | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:17 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 79 | BRS  | 208  | (troubleshoot\$3 or inspect\$3) with.(defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (micro-fabrication or fabrication) and high with resolution with imag\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:17 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 80 | BRS  | 80   | (troubleshoot\$3 or inspect\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (micro-fabrication or fabrication) and high with resolution with imag\$3 and defect\$1 with (file\$1 dor database) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:17 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 81 | BRS  | 1    | (troubleshoot\$3 or inspect\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (micro-fabrication or fabrication) and high with resolution with imag\$3 and initial\$2 with defect\$1 with (file\$1 dor database) (analy\$4 or diagnos\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and chemical\$2 with analy\$4 with surface\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:18 |          |
| 82 | BRS  | 110  | (troubleshoot\$3 or inspect\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and chemical\$2 with analy\$4 with surface\$1   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:18 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 83 | BRS  | 11   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>chemical\$2 with analy\$4<br>with expos\$3 with<br>surface\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:20 |          |
| 84 | BRS  | 7    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>EDS with tool\$1  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:21 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 85 | BRS  | 1    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>cross with section\$2 with<br>three with dimension and<br>EDS with tool\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:21 |          |
| 86 | BRS  | 1    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>cross with section\$2 with<br>three with dimension and<br>EDS with tool\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:21 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 87 | BRS  | 159  | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (cross-section\$2 or (cross with section\$2)) with (3-d mor dimension\$1) and EDS | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:22 |          |
| 88 | BRS  | 159  | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (cross-section\$2 or (cross with section\$2)) with (3-d mor dimension\$1) and EDS | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:25 |          |



|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 89 | BRS  | 1    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (cross-section\$2 or (cross with section\$2)) with (3-d or dimension\$1) with EDS | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:25 |          |
| 90 | BRS  | 3    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (cross-section\$2 or (cross with section\$2)) with (3-d or dimension\$1) same EDS | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:26 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 91 | BRS  | 324  | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and chemical\$2 with analy\$4 with surface\$1  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:26 |          |
| 92 | BRS  | 49   | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) with chemical\$2 with analy\$4 with surface\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:26 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 93 | BRS  | 4    | (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) with chemical\$2 with analy\$4 with expos\$3 with surface\$1   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:27 |          |
| 94 | BRS  | 3    | (analy\$4 or diagnos\$3) with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and two with charg\$3 with particle\$1 with beam\$1 and (program\$4 or software\$1 or cod\$3) with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:27 |          |

|    | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|----|------|------|---|--|---------------------|----------|
| 95 | BRS  | 6    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:28 |          |
| 96 | BRS  | 2    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(dual or two) with charg\$3<br>with particle\$1 with beams   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:28 |          |

|    | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|----|------|------|--|--|---------------------|----------|
| 97 | BRS  | 12   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(dual or two) with charg\$3<br>with particle\$1 with beams  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:29 |          |
| 98 | BRS  | 3    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) same<br>charg\$3 with particle\$1<br>with beams and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:31 |          |

|     | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|-----|------|------|---|--|---------------------|----------|
| 99  | BRS  | 790  | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>devices with beams and<br>(program\$4 or software\$1<br>or cod\$3) with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:31 |          |
| 100 | BRS  | 0    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>dual with charg\$3 with<br>particle\$1 with beams  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:32 |          |

|     | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|-----|------|------|--|--|---------------------|----------|
| 101 | BRS  | 5    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>dual with charg\$3 with<br>particle\$1 with beam\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:32 |          |
| 102 | BRS  | 6    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>dual same charg\$3 with<br>particle\$1 with beam\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:32 |          |

|     | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|-----|------|------|--|--|---------------------|----------|
| 103 | BRS  | 45   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(two or dual) with charg\$3<br>with particle\$1             | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:32 |          |
| 104 | BRS  | 12   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) same<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(two or dual) adj beams<br>and charg\$3 with<br>particle\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:33 |          |



|     | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|-----|------|------|---|--|---------------------|----------|
| 105 | BRS  | 6    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:33 |          |

|     | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|-----|------|------|---|--|---------------------|----------|
| 106 | BRS  | 1    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 and user\$1<br>with (interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:35 |          |

|     | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|-----|------|------|--|--|---------------------|----------|
| 107 | BRS  | 6    | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$ and (program\$4<br>or software\$1 or cod\$3)<br>with execut\$3 and user\$1<br>with (interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:36 |          |

|     | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|-----|------|------|--|--|---------------------|----------|
| 108 | BRS  | 66   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:37 |          |
| 109 | BRS  | 18   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beams and user\$1 with<br>(interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:37 |          |

|     | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|-----|------|------|--|--|---------------------|----------|
| 110 | BRS  | 20   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (two or<br>dual) with beam\$1 and<br>user\$1 with (interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:37 |          |

|     | Type | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|-----|------|------|---|--|---------------------|----------|
| 111 | BRS  | 17   | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (two or<br>dual) adj beam\$1 and<br>user\$1 with (interface or<br>communicat\$3) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:38 |          |

|     | Type    | Hits | Search Text   | DBs  | Time Stamp          | Comments |
|-----|---------|------|---|--|---------------------|----------|
| 112 | BRS 0   |      | (analy\$4 or diagnos\$3)<br>with (defect\$1 or error\$1<br>or malfunction\$2 or<br>problem\$1 or fault\$1 or<br>fail\$3 or anomal\$3 or<br>trouble\$1) with<br>(semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>charg\$3 with particle\$1<br>with beam\$1 and (two or<br>dual) adj beam\$1 and<br>user\$1 with (interface or<br>communicat\$3) and computer<br>with job\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:38 |          |
| 113 | BRS 838 |      | (defect\$1 or error\$1 or<br>malfunction\$2 or problem\$1<br>or fault\$1 or fail\$3 or<br>anomal\$3 or trouble\$1)<br>with (semiconductor\$1 or<br>wafer\$1 or IC\$1 or<br>(integrated adj circuit\$1)<br>or chip\$1 or die\$1) and<br>(calibrat\$3 or compensat\$3<br>or adjust\$3) with imag\$3<br>with value\$1  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:38 |          |

|     | Type | Hits | Search Text  | DBs  | Time Stamp          | Comments |
|-----|------|------|--|--|---------------------|----------|
| 114 | BRS  | 56   | analy\$4 with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (calibrat\$3 or compensat\$3 or adjust\$3) with imag\$3 with value\$1                             | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:39 |          |
| 115 | BRS  | 1    | analy\$4 with (defect\$1 or error\$1 or malfunction\$2 or problem\$1 or fault\$1 or fail\$3 or anomal\$3 or trouble\$1) with (semiconductor\$1 or wafer\$1 or IC\$1 or (integrated adj circuit\$1) or chip\$1 or die\$1) and (calibrat\$3 or compensat\$3 or adjust\$3) with charged with particle with beam with parameter\$1 | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT;<br>IBM_TDB | 2005/11/28<br>09:39 |          |



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|---|---|---|--------------------------|------------|-------|--|------------|---------------------|-------------------|
| 1 |   |   | US<br>2005025136<br>5 A1 | 20051110   | 25    | System and method for identifying a manufacturing tool causing a fault   | 702/185    |                     | 702/185           |
| 2 | X |   | US<br>2005025127<br>7 A1 | 20051110   | 16    | Method and system for problem case packaging   | 700/110    | 702/185             | 702/185           |
| 3 | X |   | US<br>2005025127<br>6 A1 | 20051110   |       | SYSTEM AND METHOD FOR REAL-TIME FAULT DETECTION, CLASSIFICATION, AND CORRECTION IN A SEMICONDUCTOR MANUFACTURING ENVIRONMENT | 700/108    | 700/121;<br>700/223 | 700/121           |
| 4 | X |   | US<br>2005024037<br>6 A1 | 20051027   | 40    | Failure diagnosis method, failure diagnosis apparatus, image forming apparatus, program, and storage medium                  | 702/183    |                     | 702/183           |
| 5 | X |   | US<br>2005023457<br>5 A1 | 20051020   |       | Job flow Petri Net and controlling mechanism for parallel processing   | 700/97     | 700/121;<br>700/95  | 700/121           |

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|----|---|---|--------------------------|------------|-------|--|------------|---------------------|-------------------|
| 6  | X |   | US<br>2005022281<br>6 A1 | 20051006   | 34    | Compactor independent fault diagnosis  | 702/185    |                     | 702/185           |
| 7  | X |   | US<br>2005020371<br>6 A1 | 20050915   |       | Method and system for delay defect location when testing digital semiconductor devices       | 702/185    |                     | 702/185           |
| 8  | X |   | US<br>2005019772<br>8 A1 | 20050908   |       | FEATURE TARGETED INSPECTION  | 700/110    | 700/121             | 700/121           |
| 9  | X |   | US<br>2005018764<br>9 A1 | 20050825   |       | Method and apparatus for the monitoring and control of a semiconductor manufacturing process | 700/121    |                     | 700/121           |
| 10 | X |   | US<br>2005018764<br>8 A1 | 20050825   |       | SEMICONDUCTOR PROCESS AND YIELD ANALYSIS INTEGRATED REAL-TIME MANAGEMENT METHOD              | 700/110    | 700/109;<br>700/121 | 700/121           |

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| 11 | X |   | US 2005018258 7 A1 | 20050818   |       | Circuit quality evaluation method and apparatus, circuit quality evaluation program, and medium having the program recorded thereon | 702/117    |              | 702/117           |
| 12 | X |   | US 2005017726 9 A1 | 20050811   |       | Method for dynamic sensor configuration and runtime execution   | 700/121    |              | 700/121           |
| 13 | X |   | US 2005017162 7 A1 | 20050804   |       | Method and apparatus for monitoring tool performance  | 700/121    |              | 700/121           |
| 14 | X |   | US 2005015991 1 A1 | 20050721   |       | Method and apparatus for automatic sensor installation  | 702/104    | 700/121      | 700/121           |
| 15 | X |   | US 2005014385 3 A1 | 20050630   |       | Mass-production transfer support system and semiconductor manufacturing system  | 700/121    | 700/109      | 700/121           |

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|----|---|---|--------------------------|------------|-------|--|------------|-----------------------------|-------------------|
| 16 | X |   | US<br>2005013773<br>6 A1 | 20050623   |       | Fuzzy reasoning model for semiconductor process fault detection using wafer acceptance test data | 700/110    | 702/185                     | 702/185           |
| 17 | X |   | US<br>2005012251<br>0 A1 | 20050609   |       | System and method for process variation monitor  | 356/237.2  | 382/145;<br>700/121         | 700/121           |
| 18 | X |   | US<br>2005011985<br>2 A1 | 20050602   |       | Semiconductor test data analysis system  | 702/118    |                             | 702/118           |
| 19 | X |   | US<br>2005011406<br>4 A1 | 20050526   |       | Circuit for a parallel bit test of a semiconductor memory device and method thereof              | 702/117    |                             | 702/117           |
| 20 | X |   | US<br>2005010798<br>4 A1 | 20050519   |       | Manufacturing apparatus and method for predicting life of rotary machine used in the same        | 702/183    |                             | 702/183           |
| 21 | X |   | US<br>2005009092<br>3 A1 | 20050428   |       | Method for monitoring a batch system   | 700/109    | 257/E21.5<br>25;<br>700/121 | 700/121           |

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| 22 | X |   | US<br>2005006563<br>0 A1 | 20050324   |       | Method and apparatus for simplified system configuration   | 700/121    | 700/103;<br>700/108 | 700/121           |
| 23 | X |   | US<br>2005006068<br>1 A1 | 20050317   |       | USING A PARTIAL METAL LEVEL MASK FOR EARLY TEST RESULTS  | 716/21     | 700/121;<br>716/4   | 700/121           |
| 24 | X |   | US<br>2005005833<br>5 A1 | 20050317   | 6     | Defect management method   | 382/141    | 700/110;<br>700/121 | 700/121           |
| 25 | X |   | US<br>2005005512<br>1 A1 | 20050310   |       | System and method for effective field loss analysis for semiconductor wafers                               | 700/110    | 700/121             | 700/121           |
| 26 | X |   | US<br>2005004983<br>6 A1 | 20050303   |       | METHOD OF DEFECT ROOT CAUSE ANALYSIS   | 702/185    |                     | 702/185           |
| 27 | X |   | US<br>2005004983<br>4 A1 | 20050303   |       | Non-invasive system and method for diagnosing potential malfunctions of semiconductor equipment components | 702/183    |                     | 702/183           |
| 28 | X |   | US<br>2005004981<br>1 A1 | 20050303   |       | System and method for indication of fuse defects based upon analysis of fuse test data                     | 702/117    |                     | 702/117           |

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| 29 | X |   | US<br>2005004981<br>0 A1 | 20050303   |       | METHOD AND SYSTEM<br>FOR DETERMINING<br>MINIMUM POST<br>PRODUCTION TEST TIME<br>REQUIRED ON AN<br>INTEGRATED CIRCUIT<br>DEVICE TO ACHIEVE<br>OPTIMUM RELIABILITY | 702/117    |                    | 702/117           |
| 30 | X |   | US<br>2005004973<br>7 A1 | 20050303   |       | Defect analysis<br>sampling control  | 700/110    | 700/121;<br>702/83 | 700/121           |
| 31 | X |   | US<br>2005002748<br>1 A1 | 20050203   |       | System for making<br>semiconductor<br>devices and<br>processing control<br>thereof   | 702/183    |                    | 702/183           |
| 32 | X |   | US<br>2005002130<br>3 A1 | 20050127   |       | Method for analyzing<br>fail bit maps of<br>wafers   | 702/185    |                    | 702/185           |
| 33 | X |   | US<br>2004026739<br>9 A1 | 20041230   |       | Feedforward,<br>feedback wafer to<br>wafer control method<br>for an etch process   | 700/121    |                    | 700/121           |
| 34 | X |   | US<br>2004026229<br>0 A1 | 20041230   |       | Method and system to<br>process<br>semiconductor wafers  | 219/490    | 700/121            | 700/121           |

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| 35 | X |   | US<br>2004026042<br>0 A1 | 20041223   |       | Processing method and processing system   | 700/121    |                    | 700/121           |
| 36 | X |   | US<br>2004022068<br>8 A1 | 20041104   |       | Advanced process control method and advanced process control system for acquiring production data in a chip production installation | 700/96     | 700/121;<br>700/95 | 700/121           |
| 37 | X |   | US<br>2004019936<br>1 A1 | 20041007   |       | Method and apparatus for equipment diagnostics and recovery with self-learning  | 702/183    |                    | 702/183           |
| 38 | X |   | US<br>2004019338<br>1 A1 | 20040930   |       | METHOD FOR ANALYZING WAFER TEST PARAMETERS  | 702/118    |                    | 702/118           |
| 39 | X |   | US<br>2004018558<br>3 A1 | 20040923   |       | Method of operating a system for chemical oxide removal   | 438/8      | 700/121            | 700/121           |

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| 40 | X |   | US<br>2004017346<br>4 A1 | 20040909   |       | Method and apparatus for providing intra-tool monitoring and control           | 205/157    | 257/E21.5<br>25;<br>700/121                   | 700/121           |
| 41 | X |   | US<br>2004015327<br>4 A1 | 20040805   |       | Fail analysis device   | 702/117    |   | 702/117           |
| 42 | X |   | US<br>2004014811<br>9 A1 | 20040729   |       | Semiconductor test apparatus   | 702/117    |   | 702/117           |
| 43 | X |   | US<br>2004013885<br>6 A1 | 20040715   |       | METHOD FOR ANALYZING FINAL TEST PARAMETERS                                     | 702/185    |   | 702/185           |
| 44 | X |   | US<br>2004013329<br>4 A1 | 20040708   |       | Defect alarm system and method   | 700/110    | 700/121                                       | 700/121           |
| 45 | X |   | US<br>2004011117<br>6 A1 | 20040610   |       | In-situ randomization and recording of wafer processing order at process tools | 700/121    |   | 700/121           |
| 46 | X |   | US<br>2004010918<br>7 A1 | 20040610   |       | Image processing apparatus, image processing method and program                | 358/1.13   | 358/1.15;<br>358/1.16;<br>702/183;<br>717/174 | 702/183           |



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| 47 | X |   | US<br>2004009318<br>5 A1 | 20040513   |       | Using clock gating or signal gating to partition a device for fault isolation and diagnostic data collection | 702/185    |                             | 702/185           |
| 48 | X |   | US<br>2004006421<br>2 A1 | 20040401   |       | Manufacturing apparatus and method for predicting life of rotary machine used in the same                    | 700/108    | 702/183                     | 702/183           |
| 49 | X |   | US<br>2004005945<br>6 A1 | 20040325   |       | Correlating an inline parameter to a device operation parameter  | 700/121    | 257/E21.5<br>25             | 700/121           |
| 50 | X |   | US<br>2004004443<br>1 A1 | 20040304   |       | Methods and systems for controlling reticle-induced errors   | 700/121    |                             | 700/121           |
| 51 | X |   | US<br>2004002929<br>9 A1 | 20040212   |       | Dynamic targeting for a process control system   | 438/5      | 257/E21.5<br>25;<br>700/121 | 700/121           |
| 52 | X |   | US<br>2004000640<br>4 A1 | 20040108   |       | Permanent chip ID using FeRAM  | 700/115    | 700/121                     | 700/121           |

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| 53 | X |   | US<br>2004000282<br>9 A1 | 20040101   |       | Semiconductor test data analysis system  | 702/118    |                    | 702/118           |
| 54 | X |   | US<br>2003023664<br>8 A1 | 20031225   |       | Memory defect redress analysis treating method, and memory testing apparatus performing the method   | 702/185    |                    | 702/185           |
| 55 | X |   | US<br>2003023658<br>6 A1 | 20031225   |       | Method for failure analysis and system for failure analysis  | 700/110    | 700/121            | 700/121           |
| 56 | X |   | US<br>2003021246<br>9 A1 | 20031113   |       | METHOD FOR AUTOMATICALLY CONTROLLING DEFECT - SPECIFICATION IN A SEMICONDUCTOR MANUFACTURING PROCESS | 700/121    | 438/14;<br>700/110 | 700/121           |
| 57 | X |   | US<br>2003020833<br>7 A1 | 20031106   |       | Apparatus for analyzing a failure of a semiconductor device and method therefor                      | 702/185    | 257/E21.5<br>25    | 702/185           |

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| 58 | X |   | US<br>2003020435<br>0 A1 | 20031030   |       | Method and apparatus for measuring the quality of delay test patterns  | 702/117    |              | 702/117           |
| 59 | X |   | US<br>2003020005<br>6 A1 | 20031023   |       | Semiconductor device analysis system   | 702/183    |              | 702/183           |
| 60 | X |   | US<br>2003018207<br>3 A1 | 20030925   |       | Method of detecting an integrated circuit in failure among integrated circuits, apparatus of doing the same, and recording medium storing program for doing the same | 702/118    |              | 702/118           |
| 61 | X |   | US<br>2003016321<br>7 A1 | 20030828   |       | Semiconductor manufacturing apparatus and its diagnosis apparatus and operating system   | 700/108    | 700/121      | 700/121           |
| 62 | X |   | US<br>2003015870<br>5 A1 | 20030821   |       | Method for avoiding irregular shutoff of production equipment and system for avoiding irregular shutoff  | 702/183    |              | 702/183           |

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| 63 | X |   | US<br>2003014954<br>7 A1 | 20030807   |       | Method for diagnosing failure of a manufacturing apparatus and a failure diagnosis system   | 702/183    |   | 702/183           |
| 64 | X |   | US<br>2003014950<br>6 A1 | 20030807   |       | Method and system to process semiconductor wafers   | 700/121    |   | 700/121           |
| 65 | X |   | US<br>2003013529<br>5 A1 | 20030717   |       | Defect source identifier with static manufacturing execution system   | 700/108    | 700/109;<br>700/110;<br>700/117;<br>700/121 | 700/121           |
| 66 | X |   | US<br>2003012589<br>7 A1 | 20030703   |       | Semiconductor device testing apparatus having timing calibration function   | 702/118    |   | 702/118           |
| 67 | X |   | US<br>2003010994<br>5 A1 | 20030612   |       | Apparatus and method for automatically controlling semiconductor manufacturing process in semiconductor factory automation system | 700/95     | 700/109;<br>700/121                         | 700/121           |

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| 68 | X |   | US<br>2003010097<br>0 A1 | 20030529   |       | Method and system of monitoring apparatuses of manufacturing IC  | 700/108    | 700/109;<br>700/121 | 700/121           |
| 69 | X |   | US<br>2003009323<br>7 A1 | 20030515   |       | Method of detecting an integrated circuit in failure among integrated circuits, apparatus of doing the same, and recording medium storing program for doing the same | 702/118    |                     | 702/118           |
| 70 | X |   | US<br>2003009317<br>4 A1 | 20030515   |       | Fabrication process control system emulator  | 700/121    |                     | 700/121           |
| 71 | X |   | US<br>2003008838<br>0 A1 | 20030508   |       | Method of detecting an integrated circuit in failure among integrated circuits, apparatus of doing the same, and recording medium storing program for doing the same | 702/118    |                     | 702/118           |

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| 72 | X |   | US 20030088379 A1 | 20030508   |       | Electron beam test system and electron beam test method  | 702/117    |                             | 702/117           |
| 73 | X |   | US 20030069660 A1 | 20030410   |       | Process error prevention method in semiconductor fabricating equipment                                       | 700/110    | 700/108;<br>700/121         | 700/121           |
| 74 | X |   | US 20030060916 A1 | 20030327   |       | Automatic production quality control method and system   | 700/121    | 700/109                     | 700/121           |
| 75 | X |   | US 20030040830 A1 | 20030227   |       | Method and apparatus for providing intra-tool monitoring and control   | 700/121    | 257/E21.5<br>25;<br>700/108 | 700/121           |
| 76 | X |   | US 20030036869 A1 | 20030220   |       | Using clock gating or signal gating to partition a device for fault isolation and diagnostic data collection | 702/117    |                             | 702/117           |
| 77 | X |   | US 20020183884 A1 | 20021205   |       | Method for continuous, non lot-based integrated circuit manufacturing  | 700/115    | 700/121                     | 700/121           |

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| 78 | X |   | US 2002016563 6 A1 | 20021107   |       | Systems and methods for metrology recipe and model generation   | 700/121    |   | 700/121           |
| 79 | X |   | US 2002010760 4 A1 | 20020808   |       | Run-to-run control method for proportional-integral-derivative (PID) controller tuning for rapid thermal processing (RTP) | 700/121    | 438/14;<br>700/31;<br>700/42;<br>702/40 | 700/121           |
| 80 | X |   | US 2002007287 8 A1 | 20020613   |       | Deterioration diagnostic method and equipment thereof   | 702/183    |   | 702/183           |
| 81 | X |   | US 2002007287 2 A1 | 20020613   |       | Method for diagnosing process parameter variations in from measurements in analog circuits                                | 702/117    | 257/E21.5<br>25                         | 702/117           |
| 82 | X |   | US 2002006934 9 A1 | 20020606   |       | Method and apparatus for control of semiconductor processing for reducing effects of environmental effects                | 712/224    | 700/121                                 | 700/121           |

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| 83 | X |   | US 2002005901 2 A1 | 20020516   |       | Method of manufacturing semiconductor devices  | 700/121    | 257/E21.5 25  | 700/121             |
| 84 | X |   | US 2002005901 0 A1 | 20020516   |       | Failure analyzing device for semiconductors  | 700/110    | 257/E21.5 25;<br>700/109;<br>700/117;<br>700/121                      | 700/121             |
| 85 | X |   | US 2002003544 7 A1 | 20020321   |       | Remote diagnosing system for semiconductor manufacturing equipment and a remote diagnosing method                                      | 702/188    | 257/E21.5 25;<br>438/14;<br>700/108;<br>700/121;<br>700/2;<br>702/183 | 700/121;<br>702/183 |
| 86 | X |   | US 2002001056 0 A1 | 20020124   |       | System for mapping logical functional test data of logical integrated circuits to physical representation using pruned diagnostic list | 702/118    | 702/117   | 702/117;<br>702/118 |



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| 87 | X |   | US<br>2001004466<br>9 A1 | 20011122   |       | System and method to reduce bond program errors of integrated circuit bonders                                   | 700/121    | 700/117   | 700/121           |
| 88 | X |   | US<br>2001004196<br>7 A1 | 20011115   |       | Semiconductor device testing apparatus and method for testing semiconductor device                              | 702/117    |   | 702/117           |
| 89 | X |   | US<br>2001000708<br>5 A1 | 20010705   |       | Method and system for supervising reference wafers on semiconductor device production line and recording medium | 700/121    | 700/115;<br>700/213;<br>700/214;<br>700/219;<br>700/225 | 700/121           |